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EXAMINER	
AUGHENBAUGH, WALTER	

ART UNIT	PAPER NUMBER
1782	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,913	TADAKI ET AL.	
	Examiner	Art Unit	
	WALTER B. AUGHENBAUGH	1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☒ Claim(s) *3,5 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/21/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Note on Claim Interpretation

1. In regard to claim 5, the phrase "…is H0.5" (line 9) appears to require that the "parameter H" (line 7) is 0.5. As in: 0.5 and nothing but 0.5. The claim has been interpreted this way for examination purposes because there does not appear to be any other way to interpret the actual claim language ("…is H0.5"). Clarification and/or correction is requested if this is not what Applicant intends to recite.

Claim Objections

2. Claims 3, 5 and 6 are objected to because of the following informalities:

in regard to claims 3 and 6, the recitation "and decreased in initial thickness of a plate not less than 50 %..." does not appear to conform to proper English.

In regard to claim 5, it appears that a comma between "can" and "is" in line 9 would make the claim read more clearly.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, the recitation "the tensile stress" in line 17 renders the claim indefinite because it cannot be ascertained whether "the tensile stress" refers to the "the tensile

stress at break" recited in line 11, or to another property, "the tensile stress". Clarification and/or correction is requested.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamaki et al. (USPN 6,099,924).

In regard to claim 5, Nakamaki et al. teach a resin-coated aluminum seamless can having structural and compositional characteristics that corresponds to the claimed can (see, for example, col. 1, lines 6-15, col. 18, line 35-col. 19, line 29, col. 17, lines 11-24 and col. 4, lines 37-57 [heat of fusion that is greater than 15 J/g taught, for example, at col. 4, lines 49-51]) except that Nakamaki et al. does not specifically teach that the polyester resin layer has the recited H value of 0.5 ("H0.5").

However, Nakamura et al. teach that the strength of the resin layer is due to the molecular orientation (col. 22, lines 52-65 and col. 23, lines 10-20), and therefore that the strength of the resin layer varies with variation of the degree of molecular orientation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the degree of molecular orientation (H) of the crystals of the polyester resin of Nakamura et al. in order to achieve the desired strength of the polyester resin layer depending on the particular desired end result, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B.

The can of Nakamaki et al. has the "superior" properties recited in claim 5 because Nakamaki et al. teaches the claimed structural and compositional limitations as discussed above. Also note that the mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. MPEP 2145 II.

7. Claim 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamaki et al. (USPN 6,099,924) in view of Robertson (USPN 4,260,419).

In regard to claims 1-4 and 6-8, Nakamaki et al. teach a resin-coated aluminum seamless can having structural and compositional characteristics that corresponds to the claimed can (see, for example, col. 1, lines 6-15, col. 18, line 35-col. 19, line 29, col. 17, lines 11-24, col. 15, lines 46-52 [a thickness of less than .110 mm is taught as a suitable thickness for the metal plate], col. 16, lines 27-33 [a thickness of 5 to 50 microns is taught as a preferred thickness range for the resin layer]), except that Nakamaki et al. does not specifically teach that "the tensile stress at

break measured for the aluminum plate that is removed from thermo-plastic resin of the side wall of the can in the direction of the circumference of the can is 450 MPa or less", and that the product of the two properties recited in the last 6 lines of the claim is 30.

Nakamaki et al. teach that aluminum is a suitable material for the metal of the can (col. 15, lines 11-17).

Robertson teaches an aluminum material for use in making cans (see entire reference) that has an ultimate tensile strength (which is tensile strength at break) of 262-317 MPa (col. 19, lines 5-10), and another aluminum material for use in making cans that has an ultimate tensile strength of 320-380 MPa (col. 20, lines 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used one of the aluminum materials taught by Robertson (which both have tensile strengths at break of less than 450 MPa) as the aluminum of the can of Nakamaki et al. since aluminum materials having tensile strengths of 262-317 MPa and 320-380 MPa are suitable materials for use in making cans that comprise an aluminum metal layer as taught by Robertson.

In regard to the claimed product of the two properties recited in the last 6 lines of the claim (the product of tensile strength and minimum thickness of the metal layer), one of ordinary skill in the art would have recognized that variation of the tensile strength (or tensile strength at break), and of the minimum thickness of the metal layer, results in a variation of the strength of the can. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the tensile strength (or tensile strength at break) of the particular metal selected and the minimum thickness of the metal layer in order to achieve the desired strength of the can depending on the particular desired end result, since it has been held

that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B.

The can taught by Nakamaki et al. and Robertson has the "superior" properties recited in claim 1 (and claims 2-4 and 6-8 via claim 1) because Nakamaki et al. teaches the claimed structural and compositional limitations as discussed above. Also note that the mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. MPEP 2145 II.

In further regard to claims 3 and 6, Nakamaki et al. and Robertson teach the structural and compositional limitations that are positively recited in claims 3 and 6. The recitations "... in advance" and "decreased in initial thickness...." are drawn to the method of forming the can, and do not positively recite any structural and compositional limitation of the final producat (the can).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Walter B Aughenbaugh /

Examiner, Art Unit 1782

6/5/10